

STATE OF TENNESSEE
AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-1531



Permit to Construct or Modify an Air Contaminant Source Issued Pursuant to Tennessee Air Quality Act

Date Issued: October 22, 2014

Permit Number:
969128P

Date Expires: October 21, 2014

Issued To:
City of Friendship
Wastewater Treatment Plant

Installation Address:
207 Industrial Road
Friendship

Installation Description:
One (1) Diesel-Fired Emergency Engine (69 BHP)
Serving a Cummins Model 30 DGHCA Generator
Rated at 30 kW

Emission Source Reference No.
17-0080-01
NSPS: 40 CFR 60 Subpart IIII
NESHAP: 40 CFR 63 Subpart ZZZZ

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations.

CONDITIONS:

1. The application that was utilized in the preparation of this permit is dated August 8, 2014, and is signed by The Honorable Casey Burnett, Mayor for the city of Friendship. If this person terminates employment or is reassigned different duties and is no longer the responsible person to represent and bind the facility in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification shall be in writing and submitted within thirty (30) days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the facility in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

(conditions continued on next page)


TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON-TRANSFERABLE

POST AT INSTALLATION ADDRESS

2. This source consists of one (1) Cummins diesel-fired engine (model no. 4BT3.3-G5) serving one (1) emergency generator, Cummins Model 30DGHCA . The rated design power for the compression ignition engine is 69 hp and the generator output is 30 kW and has a maximum fire rate of 2.37 gallons per hour, and the engine manufacturing date is April 29, 2013.
3. Only diesel fuel shall be used for this source.
4. The permittee has designated this source as an Emergency Power Generator. According to a memorandum dated September 6, 1995, from John Seitz, Director, Office of Air Quality Planning and Standards, "EPA believes that 500 hours is an appropriate default assumption for estimating the number of hours that an emergency generator could be expected to operate under worst-case conditions." This value will be assumed to be the maximum operating hours per 12-month period for this source for the purpose of establishing a "potential to emit" for the facility for the pollutants of concern for the engine specified in condition 2. In the event the unit operates beyond this time limit, the total annual hours of operation shall be reported to the Technical Secretary by the end of the calendar year, along with the amount of fuel used, and actual emissions from this unit.

Compliance Method: The permittee shall keep a log of the number of operating hours for each calendar year, in a form that readily provides the information required in the following table and shows compliance with **Conditions 4 and 10** of this permit. All data, including all required calculations, must be entered in the log no later than thirty (30) days from the end of each calendar quarter for which the data is required. The permittee shall retain this record for a period of not less than two (2) years and keep this record available for inspection by the Technical Secretary or their representative.

TAPCR 1200-03-10-.02(2)(a)

Diesel Fuel Only				Year:
Calendar quarter	Operating Hours per Calendar Year			Comments**
	Maintenance checks & readiness testing	Other non-emergency operation	Emergency operation	
Jan - Mar				
Apr - June				
July - Sept				
Oct - Dec				
Totals				
** The owner or operator must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation.				

5. The sulfur content of the diesel fuel used at this source shall not exceed 0.05 % by weight.

Compliance Method: Compliance with this limitation shall be assured through the vendor's certification of sulfur content. The permittee shall use the vendor's certification for the sulfur content for each shipment of diesel fuel, or alternatively, the vendor may supply a statement that all diesel fuel delivered to the facility will contain no more than 0.05 wt. % sulfur. This is approximately equal to 0.141 lb/hr and 0.035 ton/yr SO₂ emissions. These records must be kept available for inspection by the Technical Secretary or a Division representative. These records must be retained for a period of no less than five (5) years. TAPCR 1200-03-14-.03(5)

6. Particulate matter (TSP) emitted from this compression-ignition engine shall not exceed 0.40 g/kW-hr (0.026 pounds per hour and 0.01 tons during each period of 12 consecutive months). TAPCR 1200-03-09-.03(8), and 40 CFR 60 Subpart IIII
7. Carbon monoxide (CO) emitted from this compression-ignition engine shall not exceed 5.0g/kW-hr (0.331 pounds per hour and 0.08 tons during any consecutive twelve (12) month period). TAPCR 1200-03-07-.07(2), and 40 CFR 60 Subpart IIII
8. Nitrogen oxides (NMHC plus NO_x) emitted from this compression-ignition engine shall not exceed 4.7 g/kW-hr (0.311 pounds per hour and 0.08 tons during any consecutive twelve (12) month period). This limit is considered to meet the Division's requirement for "low-NO_x" technology. TAPCR 1200-03-09-.03(8), and 40 CFR 60 Subpart IIII
9. Compliance with the Particulate, Carbon Monoxide, and Nitrogen Oxides emission limits for this compression-ignition engine are based on compliance with conditions 2 and 3 of this permit.
10. This engine (as specified at condition 2) is subject to the provisions of 40 CFR 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Under the provisions of this rule, the engine at this facility is considered to be a "new" stationary RICE located at an "area source."

Per 40 CFR 60.4211:

- (f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
 - (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
 - (2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
 - (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
 - (ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

- (iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
 - (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 - (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
 - (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 - (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
 - (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
 - (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

Should EPA revise the above requirements, this permit will be revised or amended to reflect the current CFR requirements.

- 11. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).
- 12. This permit shall serve as a temporary operating permit from the date of issuance to the receipt of a standard operating permit, provided that an application for an operating permit is submitted within thirty (30) days of initial start-up of this emission source.

13. The permittee shall certify the start-up date of the air contaminant source regulated by this permit by submitting **A COPY OF ALL PAGES OF THIS PERMIT,** with the information required in A) and B) of this condition completed, to the Technical Secretary's representatives listed below:

A) DATE OF START-UP: ____ / ____ / ____
month day year

B) Anticipated operating rate: ____ percent of maximum rated capacity

For the purpose of complying with this condition, "start-up" of the air contaminant source shall be the date of the setting in operation of the source for the production of product for sale or use as raw materials or steam or heat production.

The undersigned represents that he/she has the full authority to represent and bind the permittee in environmental permitting affairs. The undersigned further represents that the above provided information is true to the best of his/her knowledge and belief.

Signature		Date
Signer's name (type or print)	Title	Phone (with area code)

Note: This certification is not an application for an operating permit. At a minimum, the appropriate application form, usually an APC-100, must be submitted requesting an operating permit. The application must be submitted in accordance with the requirements of this permit.

The completed certification shall be delivered to West Tennessee Permit Program at the address listed below no later than 30 days after the air contaminant source is started-up.

Division of Air Pollution Control
West Tennessee Permit Program
William R. Snodgrass TN Tower
312 Rosa L. Parks Ave., 15th Floor
Nashville, TN 37243
Or by e-mail at: air.pollution.control@tn.gov

(end of conditions)

Emission Summary

Permit Number: 969128P

Source Status: New ☒ Modification ☐ Expansion ☐ Relocation ☐

Permit Status: New ☒ Renewal ☐

PSD ☐ NSPS ☒ NESHAPs ☒

Previous Permit Number: Construction n/a Operating n/a

	Pounds/Hour			Tons/Year				Date of Data	*	Applicable Standard
	Actual	Potential	Allowable	Actual	Potential	Allowable	Net Change			
TSP	0.026	0.026	0.026	0.01	0.01	0.01	0.01	10/10/2014		1200-03-09-.03(8), §60.4205(b)
SO ₂	0.141	0.141	0.141	0.035	0.035	0.035	0.035	10/10/2014		1200-03-14-.03(5)
CO	0.331	0.331	0.331	0.08	0.08	0.08	0.08	10/10/2014		1200-03-09-.03(8), §60.4205(b)
VOC	1.865	1.865	1.865	0.466	0.466	0.466	0.466	10/10/2014		1200-03-07-.07(2)
NO _x	0.311	0.311	0.311	0.311	0.08	0.08	0.08	10/10/2014		1200-03-09-.03(8), §60.4205(b)

* - Source of data

PERMITTING PROGRAM: JTS DATE: October 10, 2014

CONSTRUCTION PERMIT SUMMARY REPORT

Company Name: City of Friendship, Wastewater Treatment Plant File Number: 17-0080 EPS Initials: JTS

Permit Number(s): 969128P Source Point Number(s): 01

Application Received (date): August 14, 2014 Application Complete (date): August 14, 2014

Air Quality Analysis Performed? Yes ☐ No ☒

Briefly describe the project: (new source, modifications) (what the process is) (type controls proposed) (emissions expected, qualitative) (replacing what sources) (background information)

This emission source consists of a diesel-fired internal combustion engine (755 hp) and associated emergency generator. The source will regularly operate only for maintenance and testing purposes. PM, SO₂, CO, NO_x, and VOC (NMHC) are emitted by this source. This source is subject to the emergency engine requirements of 40 CFR 60 Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines). This source is also subject to the requirements of 40 CFR 63 Subpart ZZZZ.

The application dated August 8 2014, states that this emission source is an emergency generator. For fee purposes, allowable emissions are calculated using 500 hours per calendar year.

Rules Analysis

Title V ☐ Cond. Major ☐ Minor ☒ Source category listed in 1200-03-9-.01(4)(b)1.(i)? Yes ☐ No ☒

Reason for PSD:	New source above ____ TPY	<input type="checkbox"/>	Sig. increase in ____ emissions	<input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Applicable NSPS:	40 CFR Part 60, Subpart IIII	<input checked="" type="checkbox"/>	State Rule 1200-03-16-. ____	<input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Applicable NESHAP:	40 CFR Part 61, Subpart ____	<input type="checkbox"/>	State Rule 1200-03-11-. ____	<input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Applicable NESHAP:	40 CFR Part 63, Subpart ZZZZ	<input checked="" type="checkbox"/>	State Rule 1200-03-31-. ____	<input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

Other Applicable State Rules

TSP Emissions:	1200-03-	<u>09</u>	-.	<u>03(8)</u>	<input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	NO _x Emissions:	1200-03-	<u>09</u>	-.	<u>03(8)</u>	<input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
SO ₂ Emissions:	1200-03-	<u>14</u>	-.	<u>03(5)</u>	<input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	Lead Emissions:	1200-03-	____	-.	____	<input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
CO Emissions:	1200-03-	<u>09</u>	-.	<u>03(8)</u>	<input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	____ Emissions:	1200-03-	____	-.	____	<input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
VOC Emissions:	1200-03-	<u>07</u>	-.	<u>07(2)</u>	<input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	____ Emissions:	1200-03-	____	-.	____	<input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

Visible Emissions from Source not to exceed 20 % opacity per Method 9 (Rule 1200-03- 05 -.01(1)) 03(6)